

Owens 09/149,721

=> d his

(FILE 'REGISTRY' ENTERED AT 10:12:54 ON 10 SEP 2001)

DEL HIS Y  
ACT OWENS/A

L1 STR  
L2 763 SEA FILE=REGISTRY SSS FUL L1

-----  
ACT OWENS149/A  
-----

L3 STR  
L4 149 SEA FILE=REGISTRY SSS FUL L3

*broad structure  
search*

FILE 'HCAPLUS' ENTERED AT 10:13:40 ON 10 SEP 2001

L5 401 S L4  
L6 611745 S NUCLEOTIDE# OR DNA OR RNA OR POLYNUCLEOTIDE# OR PLASMID# OR  
O  
L7 639687 S L6 OR NUCLEIC ACID#  
L8 4 S L7 AND L5

=> fil reg

FILE 'REGISTRY' ENTERED AT 10:17:42 ON 10 SEP 2001  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2001 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 7 SEP 2001 HIGHEST RN 355367-45-2  
 DICTIONARY FILE UPDATES: 7 SEP 2001 HIGHEST RN 355367-45-2

TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

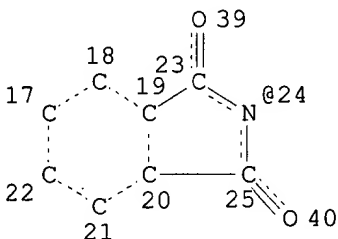
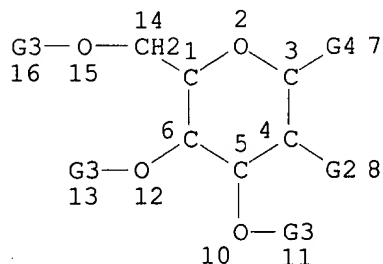
Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT  
 for details.

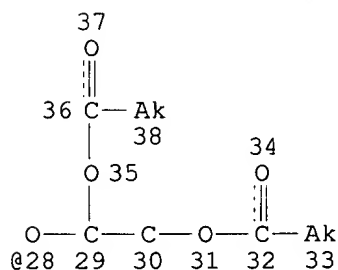
=> d que stat 14

L3

STR



O—Ak  
 @26 27



VAR G2=NH2/24  
 VAR G3=H/C(O)CH3  
 VAR G4=BR/26/28  
 NODE ATTRIBUTES:  
 CONNECT IS E1 RC AT 27  
 CONNECT IS E1 RC AT 33  
 CONNECT IS E1 RC AT 38  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED

Owens 09/149,721

NUMBER OF NODES IS 39

STEREO ATTRIBUTES: NONE

L4 149 SEA FILE=REGISTRY SSS FUL L3

100.0% PROCESSED 50974 ITERATIONS  
SEARCH TIME: 00.00.15

149 ANSWERS

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 10:17:52 ON 10 SEP 2001  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

FILE COVERS 1947 - 10 Sep 2001 VOL 135 ISS 12  
FILE LAST UPDATED: 7 Sep 2001 (20010907/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

HCAplus now provides online access to patents and literature covered in CA from 1947 to the present. On April 22, 2001, bibliographic information and abstracts were added for over 2.2 million references published in CA from 1947 to 1966.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=

=> d his 15-

FILE 'HCAPLUS' ENTERED AT 10:13:40 ON 10 SEP 2001  
L5 401 S L4  
L6 611745 S NUCLEOTIDE# OR DNA OR RNA OR POLYNUCLEOTIDE# OR PLASMID# OR  
O  
L7 639687 S L6 OR NUCLEIC ACID#  
L8 4 S L7 AND L5

=> d .ca hitstr 1-4

L8 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:186432 HCAPLUS

DOCUMENT NUMBER: 134:340652

TITLE: A new strategy for the solid-phase synthesis of glycoconjugate biomolecules

AUTHOR(S): Di Fabio, Giovanni; De Capua, Antonia; De Napoli, Lorenzo; Montesarchio, Daniela; Piccialli, Gennaro; Rossi, Filomena; Benedetti, Ettore

CORPORATE SOURCE: Dipartimento di Chimica Organica e Biochimica, Universita degli Studi di Napoli "Federico II", Naples, 80126, Italy

SOURCE: Synlett (2001), (3), 341-344  
CODEN: SYNLES; ISSN: 0936-5214

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A simple and efficient bi-directional solid-phase synthesis, based on the use of a Tentagel solid support, functionalized with a suitably protected 2-amino sugar residue, is proposed for the prepn. of a variety of glycoconjugates, including glycopeptides and nucleoglycopeptides.

CC 33-9 (Carbohydrates)  
Section cross-reference(s): 34

ST **nucleotide** glycoconjugate glycopeptide Tentagel solid phase synthesis

IT Solid phase synthesis  
(solid-phase synthesis of **nucleotide** glycopeptides)

IT Glycoconjugates  
Glycopeptides  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(solid-phase synthesis of **nucleotide** glycopeptides)

IT 108-30-5, Succinic anhydride, reactions **13374-29-3** 35661-60-0  
98796-53-3 102212-98-6 313988-69-1  
RL: RCT (Reactant)

(solid-phase synthesis of **nucleotide** glycopeptides)  
IT 338801-55-1P 338801-56-2DP, Tentagel resin polymer support  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(solid-phase synthesis of **nucleotide** glycopeptides)

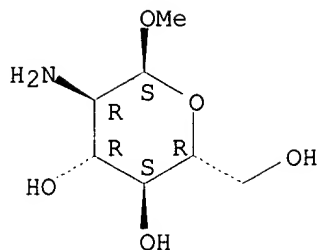
IT 338801-57-3P 338801-58-4P 338801-59-5P 338801-60-8P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(solid-phase synthesis of **nucleotide** glycopeptides)

IT **13374-29-3**  
RL: RCT (Reactant)  
(solid-phase synthesis of **nucleotide** glycopeptides)

RN 13374-29-3 HCAPLUS

CN .alpha.-D-Glucopyranoside, methyl 2-amino-2-deoxy-, hydrochloride (7CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

REFERENCE COUNT: 23  
 REFERENCE(S): (1) Adinolfi, M; Tetrahedron Lett 1996, V37, P5007 HCAPLUS  
 (2) Adinolfi, M; Tetrahedron Lett 1998, V39, P1953 HCAPLUS  
 (3) Adinolfi, M; Tetrahedron Lett 1999, V40, P2607 HCAPLUS  
 (4) Akhtar, S; Tetrahedron Lett 1995, V36, P7333 HCAPLUS  
 (7) de Kort, M; Eur J Org Chem 1999, P2337 HCAPLUS  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2001 ACS  
 ACCESSION NUMBER: 1999:194158 HCAPLUS  
 DOCUMENT NUMBER: 130:242316  
 TITLE: Hydrophobic glycosylamine derivatives, compositions, and methods for their use  
 INVENTOR(S): Mumper, Russell J.; Tagliaferri, Frank  
 PATENT ASSIGNEE(S): Genemedicine, Inc., USA  
 SOURCE: PCT Int. Appl., 88 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9912945	A2	19990318	WO 1998-US18888	19980908
WO 9912945	A3	19990819		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9893839	A1	19990329	AU 1998-93839	19980908
EP 1015465	A2	20000705	EP 1998-946932	19980908
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI  
 PRIORITY APPLN. INFO.: US 1997-58259 P 19970908  
 WO 1998-US18888 W 19980908  
 OTHER SOURCE(S): MARPAT 130:242316  
 AB The invention relates in part to hydrophobic glycosylamine derivs., methods for synthesizing hydrophobic derivs., compns. comprising these derivs., and methods for delivering macromols., such as proteins, peptides, lipids, carbohydrates, peptidomimetics, org. mols., and nucleic acids, to cells by administering these compns. The compds., compns., and methods of the invention are particularly useful for gene therapy and cancer treatment. Compns. contg. 1-mono-oleyl-.beta.-D-glucosamine or 1-monopalmityl-.beta.-D-glucosamine, plasmid DNA comprising an IL-2 gene, and DOPE reduced the growth rate in mice by 30% after 9 days and by 25% after 13 days, resp.  
 IC ICM C07H015-00  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 33  
 IT **Nucleotides**, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (analog; compns. and synthesis of hydrophobic glycosylamine derivs. for delivery of macromol. compds. to cells)  
 IT Antitumor agents  
 Drug delivery systems  
 Gene therapy  
 Infusions (drug delivery systems)  
 Inhalants (drug delivery systems)  
 Injections (drug delivery systems)  
 Intravenous injections  
 Liposomes (drug delivery systems)  
 Oral drug delivery systems  
**Plasmids**  
 Reducing agents  
 (compns. and synthesis of hydrophobic glycosylamine derivs. for delivery of macromol. compds. to cells)  
 IT **DNA**  
**Nucleic acids**  
**Polynucleotides**  
**RNA**  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (compns. and synthesis of hydrophobic glycosylamine derivs. for delivery of macromol. compds. to cells)  
 IT **221247-53-6P 221247-55-8P**  
 RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (compns. and synthesis of hydrophobic glycosylamine derivs. for delivery of macromol. compds. to cells)  
 IT 143-28-2, Oleyl alcohol 36653-82-4, Hexadecanol **63000-69-1**  
**138395-62-7**  
 RL: RCT (Reactant)  
 (compns. and synthesis of hydrophobic glycosylamine derivs. for delivery of macromol. compds. to cells)  
 IT **221247-52-5P 221247-54-7P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (compns. and synthesis of hydrophobic glycosylamine derivs. for delivery of macromol. compds. to cells)  
 IT **221247-53-6P 221247-55-8P**  
 RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);

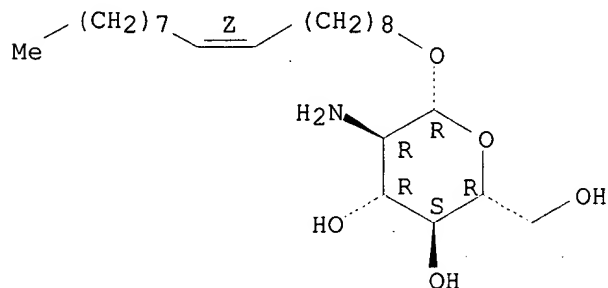
Owens 09/149,721

BIOL (Biological study); PREP (Preparation); USES (Uses)  
(comps. and synthesis of hydrophobic glycosylamine derivs. for  
delivery of macromol. compds. to cells)

RN 221247-53-6 HCAPLUS

CN .beta.-D-Glucopyranoside, (9Z)-9-octadecenyl 2-amino-2-deoxy- (9CI) (CA  
INDEX NAME)

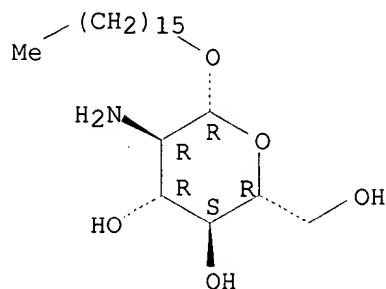
Absolute stereochemistry.  
Double bond geometry as shown.



RN 221247-55-8 HCAPLUS

CN .beta.-D-Glucopyranoside, hexadecyl 2-amino-2-deoxy- (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.



IT 63000-69-1 138395-62-7

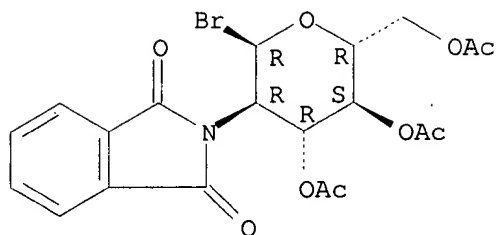
RL: RCT (Reactant)

(comps. and synthesis of hydrophobic glycosylamine derivs. for  
delivery of macromol. compds. to cells)

RN 63000-69-1 HCAPLUS

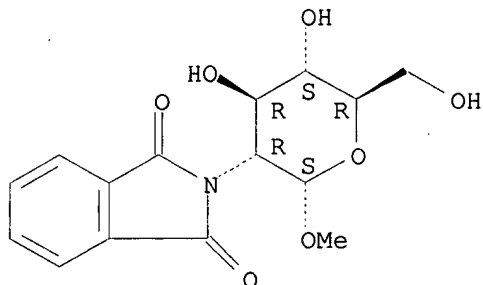
CN .alpha.-D-Glucopyranosyl bromide, 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-  
isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



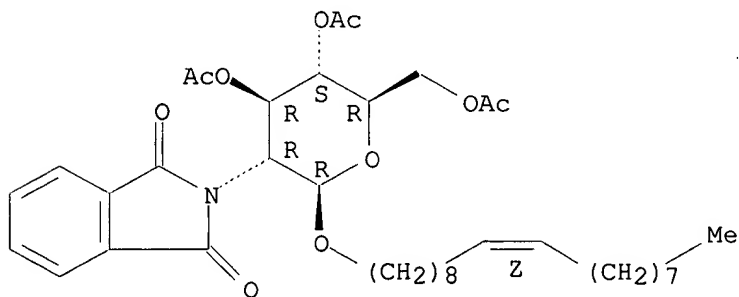
RN 138395-62-7 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, methyl 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



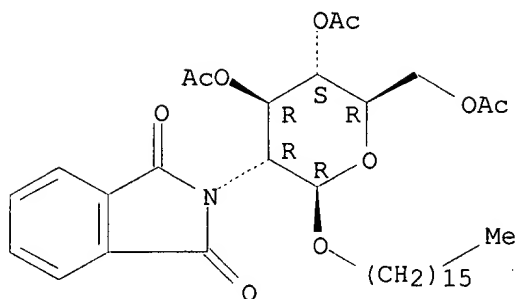
IT 221247-52-5P 221247-54-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (comps. and synthesis of hydrophobic glycosylamine derivs. for  
 delivery of macromol. compds. to cells)  
 RN 221247-52-5 HCAPLUS  
 CN .beta.-D-Glucopyranoside, (9Z)-9-octadecenyl 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RN 221247-54-7 HCAPLUS  
 CN .beta.-D-Glucopyranoside, hexadecyl 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1995:441303 HCAPLUS

DOCUMENT NUMBER: 122:205195

TITLE: Bivalent sialyl Lewis X (SLeX) saccharides to inhibit selectin-mediated cell adhesion

INVENTOR(S): Gaeta, Federico C. A.; DeFrees, Shawn A.

PATENT ASSIGNEE(S): Cytel Corp., USA

SOURCE: PCT Int. Appl., 105 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9503059	A1	19950202	WO 1994-US8384	19940721
W: AU, BG, CA, CN, CZ, FI, HU, JP, KR, MN, NO, NZ, PL, RO, RU, SK, UA, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5559103	A	19960924	US 1994-278020	19940720
AU 9474046	A1	19950220	AU 1994-74046	19940721
JP 09500683	T2	19970121	JP 1994-505381	19940721
PRIORITY APPLN. INFO.:			US 1993-95657	19930721
			US 1994-278020	19940720
			WO 1994-US8384	19940721

OTHER SOURCE(S): MARPAT 122:205195

AB Bivalent SLeX saccharide derivs. are provided that inhibit binding of cells expressing a surface selectin receptor (e.g. blood platelets and vascular endothelial cells) to cells which express SLeX on their surfaces (e.g. leukocytes). Pharmaceutical compns. comprising these saccharides, processes for making and using them, and methods for synthesis of the saccharides are also disclosed.

IC ICM A61K031-715

CC 1-8 (Pharmacology)

Section cross-reference(s): 33, 63

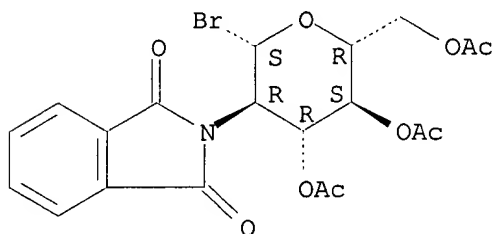
IT **Plasmid** and Episome

(pCDNAI-sol-E-selectin; bivalent sialyl Lewis X (SLeX) saccharides to inhibit selectin-mediated cell adhesion)

IT 98-88-4, Benzoyl chloride 3019-71-4, Trichloroacetyl isocyanate

10028-45-2 28053-08-9 28605-65-4 101833-22-1 148296-47-3  
 RL: RCT (Reactant)  
 (bivalent sialyl Lewis X (S<sub>Lex</sub>) saccharides to inhibit  
 selectin-mediated cell adhesion)  
 IT 10028-45-2  
 RL: RCT (Reactant)  
 (bivalent sialyl Lewis X (S<sub>Lex</sub>) saccharides to inhibit  
 selectin-mediated cell adhesion)  
 RN 10028-45-2 HCAPLUS  
 CN .beta.-D-Glucopyranosyl bromide, 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-  
 isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1994:548341 HCAPLUS

DOCUMENT NUMBER: 121:148341

TITLE: Structure-activity relationships in the induction of  
 single-strand breakage in **plasmid** pBR322  
 DNA by amino sugars and derivatives

AUTHOR(S): Kashige, Nobuhiro; Yamaguchi, Tadatoshi; Ohtakara,  
 Akira; Mitsutomi, Masaru; Brimacombe, John S.; Miake,  
 Fumio; Watanabe, Kenji

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Fukuoka  
 University, Nanakuma, Jonan-ku, Fukuoka, 814-01,  
 Japan

SOURCE: Carbohydr. Res. (1994), 257(2), 285-91  
 CODEN: CRBRAT; ISSN: 0008-6215

DOCUMENT TYPE: Journal

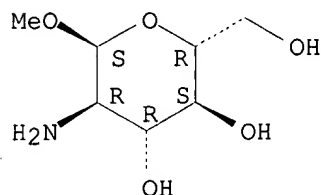
LANGUAGE: English

AB Structure-activity relationships in the induction of strand breakage in  
 plasmid pBR322 DNA by amino sugars and their derivs. were investigated  
 using agarose gel electrophoresis. The coexistence of a potential free  
 aldehyde group at the C-1 position and a free amino group at the C-2  
 position in the mols. was indispensable for the display of DNA  
 strand-breaking activity in both mono- and oligo-aminosaccharides. The  
 activity was increased by the introduction of an acidic group, esp. a  
 phosphate group, at the C-6 position. The activity was also increased by  
 the addn. of Cu<sup>2+</sup>. The order of activity of the amino monosaccharides  
 tested was D-isoglucosamine > D-mannosamine > D-galactosamine >  
 D-glucosamine, and it is suggested that this order is correlated with the  
 portion of acyclic (aldehydo) form in the soln. of each sugar. The  
 possible chem. basis for DNA strand breakage by amino sugars is  
 discussed.

CC 1-3 (Pharmacology)  
 Section cross-reference(s): 4

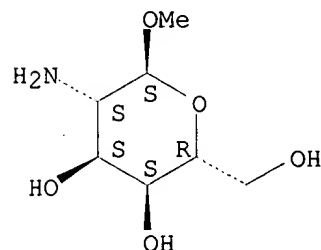
ST amino sugar DNA strand breakage structure  
 IT Molecular structure-biological activity relationship  
 (DNA-cleaving, of amino sugars and derivs.)  
 IT 50-99-7, D-Glucose, biological studies 154-17-6, 2-Deoxy-D-glucose  
 298-08-8, .alpha.-Aminoacetone 499-14-9, Chondrosine 576-44-3,  
 D-Kanosamine 577-76-4, Chitobiose 1811-31-0, N-Acetyl-D-galactosamine  
 3416-24-8, D-Glucosamine 3615-17-6, N-Acetyl-D-mannosamine 3616-42-0,  
 D-Glucosamine 6-phosphate 3646-68-2, D-Glucosaminic acid 4429-04-3,  
 D-Isoglucosamine 4607-22-1 **4704-14-7**, Methyl  
 2-amino-2-deoxy-.alpha.-D-glucopyranoside 5155-47-5, Methyl  
 6-amino-6-deoxy-.alpha.-D-glucopyranoside 5567-52-2, Chitotetraose  
 7512-17-6, N-Acetyl-D-glucosamine 7535-00-4, D-Galactosamine  
 14307-02-9, D-Mannosamine 14635-95-1 19889-76-0 32385-07-2  
 35812-81-8 40879-84-3 41708-93-4, Chitotriose 41708-94-5,  
 Chitopentaose 41708-95-6, Chitohexaose 50692-69-8, Benzyl  
 2-amino-2-deoxy-.alpha.-D-glucopyranoside 53574-53-1 **63122-16-7**  
 66954-08-3 76330-20-6 91674-26-9 138430-53-2 156304-79-9  
 156304-80-2 156304-81-3  
 RL: BIOL (Biological study)  
 (DNA single-strand breakage by, structure in relation to)  
 IT **4704-14-7**, Methyl 2-amino-2-deoxy-.alpha.-D-glucopyranoside  
**63122-16-7**  
 RL: BIOL (Biological study)  
 (DNA single-strand breakage by, structure in relation to)  
 RN 4704-14-7 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, methyl 2-amino-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 63122-16-7 HCAPLUS  
 CN .alpha.-D-Altropyranoside, methyl 2-amino-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



Owens 09/149,721

=> d his

(FILE 'HCAPLUS' ENTERED AT 10:01:46 ON 10 SEP 2001)  
DEL HIS Y

FILE 'REGISTRY' ENTERED AT 10:03:17 ON 10 SEP 2001  
ACT OWENS2/A

-----  
L1 STR  
L2 ( 149)SEA FILE=REGISTRY SSS FUL L1  
L3 STR  
L4 24 SEA FILE=REGISTRY SUB=L2 SSS FUL L3  
-----  
L5 501021 S NC4-C6/ES  
L6 14 S L5 AND L4  
L7 5 S L4 AND C>23  
L8 18 S L4 AND BR/ELS  
L9 12 S L8 AND L6

*narrowed structural search*

FILE 'HCAPLUS' ENTERED AT 10:08:32 ON 10 SEP 2001  
L10 6 S L7  
L11 194 S L9  
L12 1 S L10 AND L11  
L13 5 S L10 NOT L12

Owens 09/149,721

=> fil reg

FILE 'REGISTRY' ENTERED AT 10:09:54 ON 10 SEP 2001  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2001 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 7 SEP 2001 HIGHEST RN 355367-45-2  
DICTIONARY FILE UPDATES: 7 SEP 2001 HIGHEST RN 355367-45-2

TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.



Structure search limits have been increased. See HELP SLIMIT  
for details.

=> d his 11-19

(FILE 'HCAPLUS' ENTERED AT 10:01:46 ON 10 SEP 2001)  
DEL HIS Y

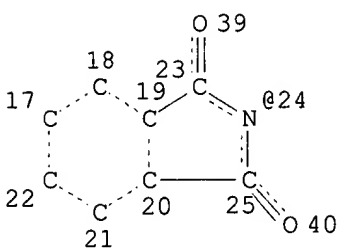
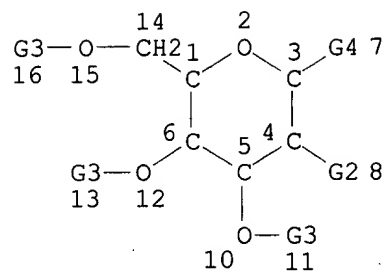
FILE 'REGISTRY' ENTERED AT 10:03:17 ON 10 SEP 2001  
ACT OWENS2/A

-----  
L1 STR  
L2 ( 149) SEA FILE=REGISTRY SSS FUL L1  
L3 STR  
L4 24 SEA FILE=REGISTRY SUB=L2 SSS FUL L3  
-----

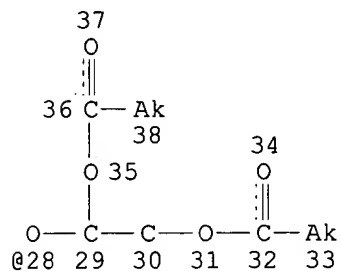
L5 501021 S NC4-C6/ES → all  Ring system's  
L6 14 S L5 AND L4 → struc. with long carbon chains  
L7 5 S L4 AND C>23 → Structure with Bromine  
L8 18 S L4 AND BR/ELS  
L9 12 S L8 AND L6 → Structures with Br and 

=> d que stat 14

L1 STR



O—Ak  
@26 27



VAR G2=NH2/24

VAR G3=H/C(O)CH3

VAR G4=BR/26/28

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 27

CONNECT IS E1 RC AT 33

CONNECT IS E1 RC AT 38

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

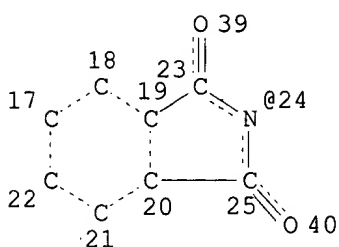
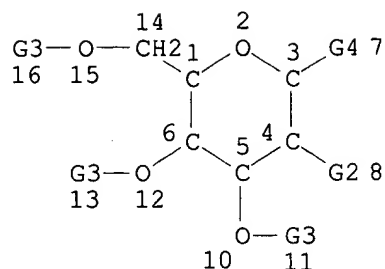
NUMBER OF NODES IS 39

STEREO ATTRIBUTES: NONE

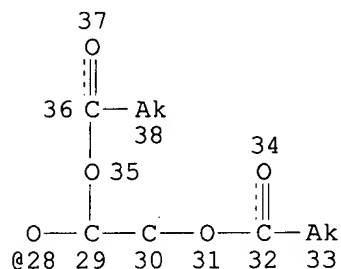
L2 ( 149)SEA FILE=REGISTRY SSS FUL L1

L3 STR

Owens 09/149,721



O—Ak  
@26 27



VAR G2=NH2/24  
VAR G3=H/C(O)CH3  
VAR G4=BR/26/28

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 27

CONNECT IS E1 RC AT 33

CONNECT IS E1 RC AT 38

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M16-X18 C AT 27

ECOUNT IS M16-X18 C AT 33

ECOUNT IS M16-X18 C AT 38

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 39

STEREO ATTRIBUTES: NONE

L4 24 SEA FILE=REGISTRY SUB=L2 SSS FUL L3

100.0% PROCESSED 149 ITERATIONS

24 ANSWERS

SEARCH TIME: 00.00.02

=> d his 14-19

(FILE 'REGISTRY' ENTERED AT 10:03:17 ON 10 SEP 2001)

L4 24 SEA FILE=REGISTRY SUB=L2 SSS FUL L3

L5 501021 S NC4-C6/ES

L6 14 S L5 AND L4

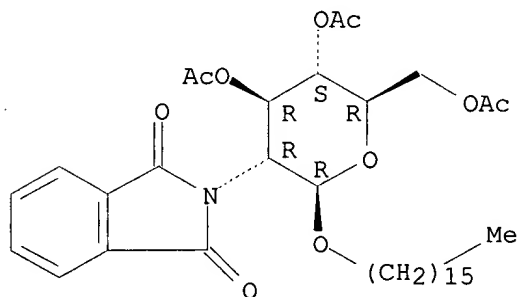
Owens 09/149,721

L7 5 S L4 AND C>23  
L8 18 S L4 AND BR/ELS  
L9 12 S L8 AND L6

=> d ide can 17 1-5;d ide can 19 1-12

L7 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2001 ACS  
RN 221247-54-7 REGISTRY  
CN .beta.-D-Glucopyranoside, hexadecyl 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C36 H53 N O10  
SR CA  
LC STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.

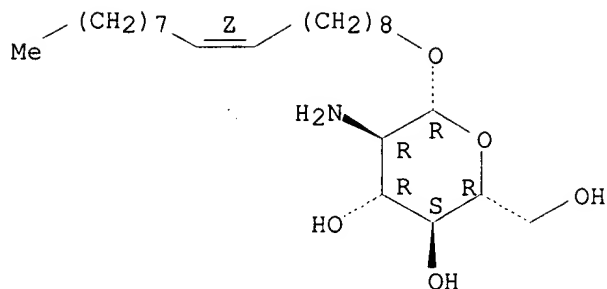


1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 130:242316

L7 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2001 ACS  
RN 221247-53-6 REGISTRY  
CN .beta.-D-Glucopyranoside, (9Z)-9-octadecenyl 2-amino-2-deoxy- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C24 H47 N O5  
SR CA  
LC STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.  
Double bond geometry as shown.

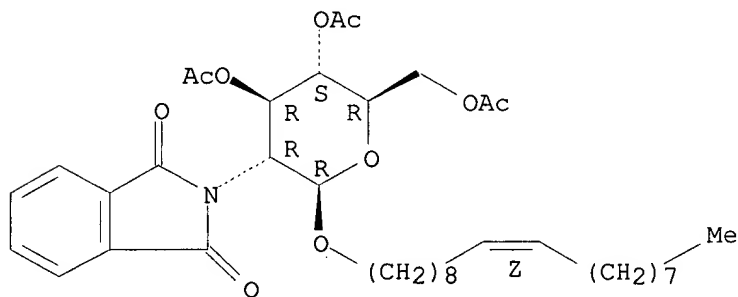


1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 130:242316

L7 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2001 ACS  
RN 221247-52-5 REGISTRY  
CN .beta.-D-Glucopyranoside, (9Z)-9-octadecenyl 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C38 H55 N O10  
SR CA  
LC STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.  
Double bond geometry as shown.

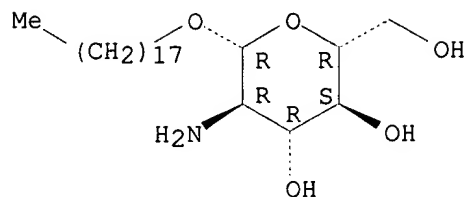


1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 130:242316

L7 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2001 ACS  
RN 159405-31-9 REGISTRY  
CN .beta.-D-Glucopyranoside, octadecyl 2-amino-2-deoxy- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C24 H49 N O5  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



4 REFERENCES IN FILE CA (1967 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:333590

REFERENCE 2: 128:305665

REFERENCE 3: 124:176728

REFERENCE 4: 121:312595

L7 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2001 ACS

RN 134227-32-0 REGISTRY

CN D-Glucopyranoside, octadecyl 2-amino-2-deoxy-, hydrochloride (9CI) (CA INDEX NAME)

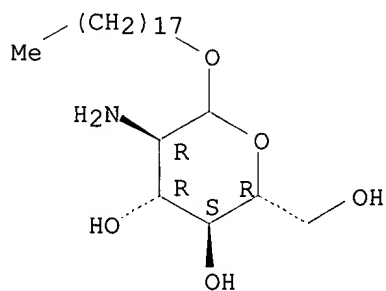
FS STEREOSEARCH

MF C24 H49 N O5 . Cl H

SR CA

LC STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.



● HCl

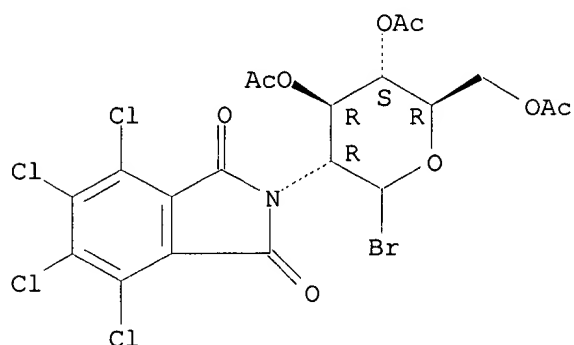
1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 115:15307

Owens 09/149,721

L9 ANSWER 1 OF 12 REGISTRY COPYRIGHT 2001 ACS  
RN 189218-64-2 REGISTRY  
CN D-Glucopyranosyl bromide, 2-deoxy-2-(4,5,6,7-tetrachloro-1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF **C20 H16 Br Cl4 N O9**  
SR CA  
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.

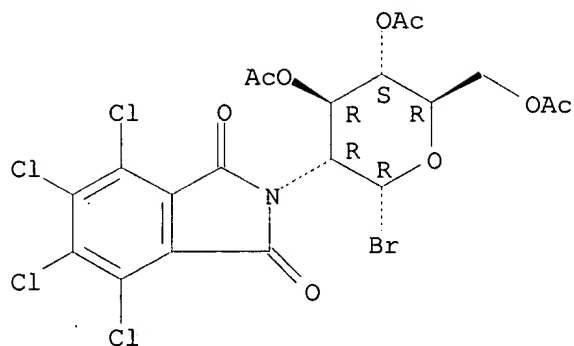


3 REFERENCES IN FILE CA (1967 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:5080  
REFERENCE 2: 129:331058  
REFERENCE 3: 126:305712

L9 ANSWER 2 OF 12 REGISTRY COPYRIGHT 2001 ACS  
RN 180778-39-6 REGISTRY  
CN .alpha.-D-Glucopyranosyl bromide, 2-deoxy-2-(4,5,6,7-tetrachloro-1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF **C20 H16 Br Cl4 N O9**  
SR CA  
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.

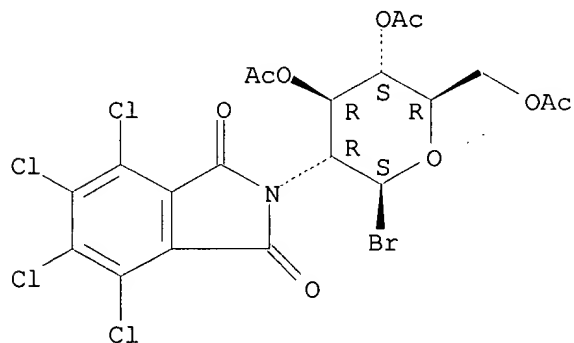


1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:196181

L9 ANSWER 3 OF 12 REGISTRY COPYRIGHT 2001 ACS  
RN 180778-38-5 REGISTRY  
CN .beta.-D-Glucopyranosyl bromide, 2-deoxy-2-(4,5,6,7-tetrachloro-1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C20 H16 Br Cl4 N O9  
SR CA  
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

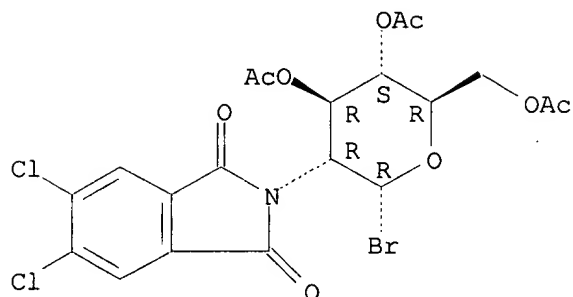
REFERENCE 1: 125:196181

L9 ANSWER 4 OF 12 REGISTRY COPYRIGHT 2001 ACS  
RN 175229-72-8 REGISTRY  
CN .alpha.-D-Glucopyranosyl bromide, 2-deoxy-2-(5,6-dichloro-1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
FS STEREOSEARCH

Owens 09/149,721

MF C20 H18 Br Cl2 N O9  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

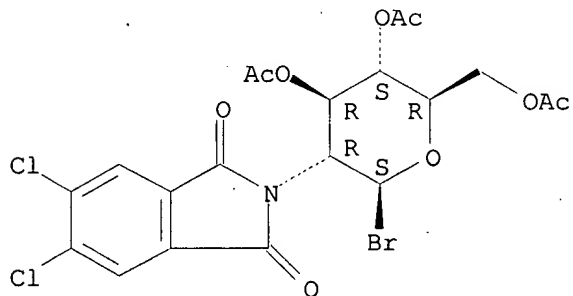


1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:261532

L9 ANSWER 5 OF 12 REGISTRY COPYRIGHT 2001 ACS  
RN 175229-71-7 REGISTRY  
CN .beta.-D-Glucopyranosyl bromide, 2-deoxy-2-(5,6-dichloro-1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C20 H18 Br Cl2 N O9  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (+).



1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

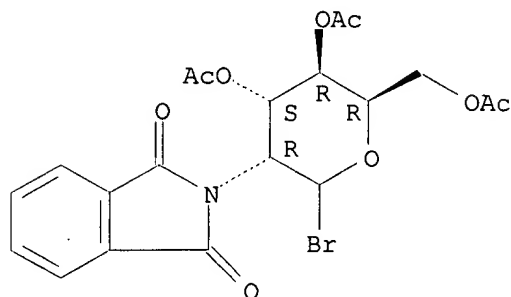
REFERENCE 1: 124:261532

L9 ANSWER 6 OF 12 REGISTRY COPYRIGHT 2001 ACS  
RN 171234-13-2 REGISTRY  
CN D-Gulopyranosyl bromide, 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)

Owens 09/149,721

FS STEREOSEARCH  
MF C20 H20 Br N O9  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



3 REFERENCES IN FILE CA (1967 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

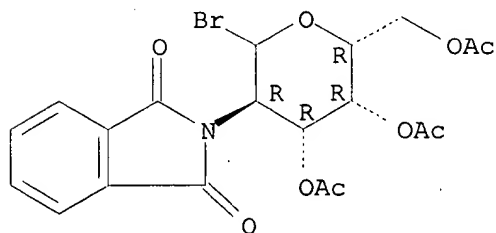
REFERENCE 1: 125:222299

REFERENCE 2: 124:56497

REFERENCE 3: 124:9205

L9 ANSWER 7 OF 12 REGISTRY COPYRIGHT 2001 ACS  
RN 110455-06-6 REGISTRY  
CN D-Galactopyranosyl bromide,  
2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C20 H20 Br N O9  
SR CA  
LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT, CHEMINFORMRX, TOXLIT, USPATFULL  
(\*File contains numerically searchable property data)

Absolute stereochemistry.



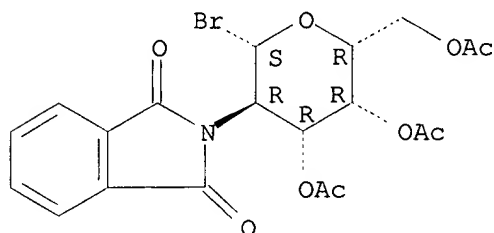
8 REFERENCES IN FILE CA (1967 TO DATE)  
8 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 122:133606

REFERENCE 2: 114:185935  
 REFERENCE 3: 113:59707  
 REFERENCE 4: 113:41172  
 REFERENCE 5: 111:23841  
 REFERENCE 6: 110:75984  
 REFERENCE 7: 109:223663  
 REFERENCE 8: 107:154687

L9 ANSWER 8 OF 12 REGISTRY COPYRIGHT 2001 ACS  
 RN 90458-06-3 REGISTRY  
 CN .beta.-D-Galactopyranosyl bromide, 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C20 H20 Br N O9  
 LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT, CHEMINFORMRX, USPATFULL  
 (\*File contains numerically searchable property data)

Absolute stereochemistry.



13 REFERENCES IN FILE CA (1967 TO DATE)  
 13 REFERENCES IN FILE CAPLUS (1967 TO DATE)

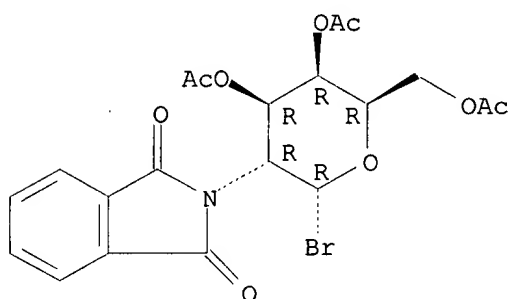
REFERENCE 1: 124:202848  
 REFERENCE 2: 123:33556  
 REFERENCE 3: 115:9257  
 REFERENCE 4: 113:172491  
 REFERENCE 5: 109:129528  
 REFERENCE 6: 108:6300  
 REFERENCE 7: 107:176347  
 REFERENCE 8: 107:134594  
 REFERENCE 9: 106:120180

Owens 09/149,721

REFERENCE 10: 106:117683

L9 ANSWER 9 OF 12 REGISTRY COPYRIGHT 2001 ACS  
RN 81704-03-2 REGISTRY  
CN .alpha.-D-Galactopyranosyl bromide, 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C20 H20 Br N O9  
LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT, CHEMINFORMRX, TOXLIT, USPATFULL  
(\*File contains numerically searchable property data)

Absolute stereochemistry.



20 REFERENCES IN FILE CA (1967 TO DATE)  
20 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:272136  
REFERENCE 2: 131:157896  
REFERENCE 3: 130:139551  
REFERENCE 4: 127:5280  
REFERENCE 5: 126:157708  
REFERENCE 6: 121:158031  
REFERENCE 7: 120:245690  
REFERENCE 8: 120:54898  
REFERENCE 9: 119:265156  
REFERENCE 10: 117:111984

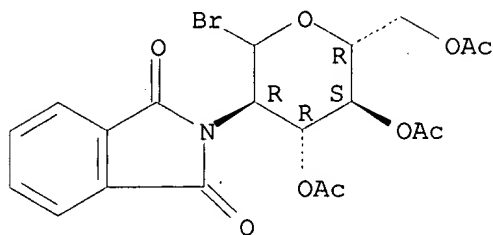
L9 ANSWER 10 OF 12 REGISTRY COPYRIGHT 2001 ACS  
RN 70831-94-6 REGISTRY  
CN D-Glucopyranosyl bromide, 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C20 H20 Br N O9  
LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT, CHEMINFORMRX, TOXLIT,

Owens 09/149,721

USPATFULL

(\*File contains numerically searchable property data)

Absolute stereochemistry.



42 REFERENCES IN FILE CA (1967 TO DATE)

42 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:74212  
REFERENCE 2: 131:45016  
REFERENCE 3: 131:19212  
REFERENCE 4: 129:316471  
REFERENCE 5: 127:319184  
REFERENCE 6: 126:168260  
REFERENCE 7: 126:157708  
REFERENCE 8: 125:329206  
REFERENCE 9: 125:185857  
REFERENCE 10: 123:199268

L9 ANSWER 11 OF 12 REGISTRY COPYRIGHT 2001 ACS

RN 63000-69-1 REGISTRY

CN .alpha.-D-Glucopyranosyl bromide, 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)

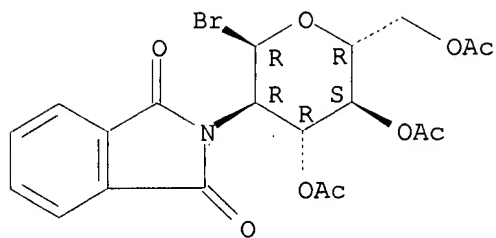
FS STEREOSEARCH

MF C20 H20 Br N O9

LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT, CHEMINFORMRX, TOXLIT, USPATFULL

(\*File contains numerically searchable property data)

Absolute stereochemistry.

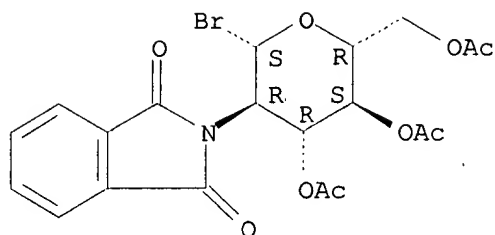


24 REFERENCES IN FILE CA (1967 TO DATE)  
24 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:362913  
REFERENCE 2: 130:242316  
REFERENCE 3: 129:343650  
REFERENCE 4: 126:47484  
REFERENCE 5: 126:8452  
REFERENCE 6: 125:301540  
REFERENCE 7: 125:196166  
REFERENCE 8: 125:87030  
REFERENCE 9: 123:33556  
REFERENCE 10: 122:106316

L9 ANSWER 12 OF 12 REGISTRY COPYRIGHT 2001 ACS  
RN 10028-45-2 REGISTRY  
CN .beta.-D-Glucopyranosyl bromide, 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Glucopyranosyl bromide, 2-deoxy-2-phthalimido-, 3,4,6-triacetate, .beta.-D- (6CI, 7CI, 8CI)  
OTHER NAMES:  
CN 2-Deoxy-2-phthalimido-3,4,6-tri-O-acetyl-.beta.-D-glucopyranosyl bromide  
FS STEREOSEARCH  
MF C20 H20 Br N O9  
LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, TOXLIT, USPATFULL  
(\*File contains numerically searchable property data)

Absolute stereochemistry.



103 REFERENCES IN FILE CA (1967 TO DATE)  
103 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:42343  
REFERENCE 2: 132:222783  
REFERENCE 3: 131:72771  
REFERENCE 4: 129:343648  
REFERENCE 5: 129:290338  
REFERENCE 6: 128:48415  
REFERENCE 7: 126:238722  
REFERENCE 8: 126:47484  
REFERENCE 9: 125:329281  
REFERENCE 10: 125:329158

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 10:11:01 ON 10 SEP 2001  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

FILE COVERS 1947 - 10 Sep 2001 VOL 135 ISS 12  
FILE LAST UPDATED: 7 Sep 2001 (20010907/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for

more information.

HCAplus now provides online access to patents and literature covered in CA from 1947 to the present. On April 22, 2001, bibliographic information and abstracts were added for over 2.2 million references published in CA from 1947 to 1966.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> s hid l10-  
L10- RANGE NOT VALID

=> d his l10-

(FILE 'HCAPLUS' ENTERED AT 10:08:32 ON 10 SEP 2001)

L10 6 S L7  
L11 194 S L9  
L12 1 S L10 AND L11  
L13 5 S L10 NOT L12

FILE 'REGISTRY' ENTERED AT 10:09:54 ON 10 SEP 2001

FILE 'HCAPLUS' ENTERED AT 10:11:01 ON 10 SEP 2001

=> d .ca hitstr l12;d .ca hitstr l13 1-5

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:194158 HCAPLUS  
DOCUMENT NUMBER: 130:242316  
TITLE: Hydrophobic glycosylamine derivatives, compositions, and methods for their use  
INVENTOR(S): Mumper, Russell J.; Tagliaferri, Frank  
PATENT ASSIGNEE(S): Genemedicine, Inc., USA  
SOURCE: PCT Int. Appl., 88 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9912945	A2	19990318	WO 1998-US18888	19980908
WO 9912945	A3	19990819		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9893839	A1	19990329	AU 1998-93839	19980908
EP 1015465	A2	20000705	EP 1998-946932	19980908

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI

PRIORITY APPLN. INFO.:

US 1997-58259 P 19970908  
WO 1998-US18888 W 19980908

OTHER SOURCE(S): MARPAT 130:242316

AB The invention relates in part to hydrophobic glycosylamine derivs., methods for synthesizing hydrophobic derivs., compns. comprising these derivs., and methods for delivering macromols., such as proteins, peptides, lipids, carbohydrates, peptidomimetics, org. mols., and nucleic acids, to cells by administering these compns. The compds., compns., and methods of the invention are particularly useful for gene therapy and cancer treatment. Compns. contg. 1-mono-oleyl-.beta.-D-glucosamine or 1-monopalmityl-.beta.-D-glucosamine, plasmid DNA comprising an IL-2 gene, and DOPE reduced the growth rate in mice by 30% after 9 days and by 25% after 13 days, resp.

IC ICM C07H015-00

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 33

IT 221247-53-6P 221247-55-8P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(compns. and synthesis of hydrophobic glycosylamine derivs. for delivery of macromol. compds. to cells)

IT 143-28-2, Oleyl alcohol 36653-82-4, Hexadecanol 63000-69-1  
138395-62-7

RL: RCT (Reactant)

(compns. and synthesis of hydrophobic glycosylamine derivs. for delivery of macromol. compds. to cells)

IT 221247-52-5P 221247-54-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(compns. and synthesis of hydrophobic glycosylamine derivs. for delivery of macromol. compds. to cells)

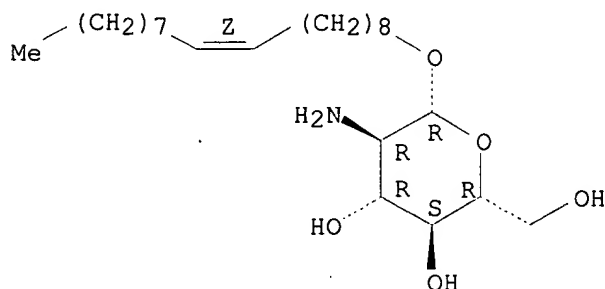
IT 221247-53-6P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(compns. and synthesis of hydrophobic glycosylamine derivs. for delivery of macromol. compds. to cells)

RN 221247-53-6 HCAPLUS

CN .beta.-D-Glucopyranoside, (9Z)-9-octadecenyl 2-amino-2-deoxy- (9CI) (CA INDEX NAME)

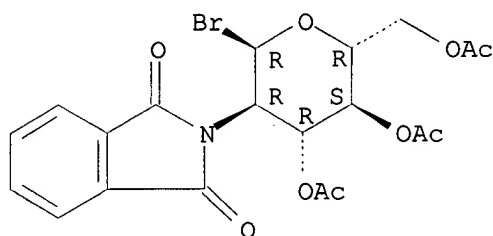
Absolute stereochemistry.  
Double bond geometry as shown.



IT 63000-69-1

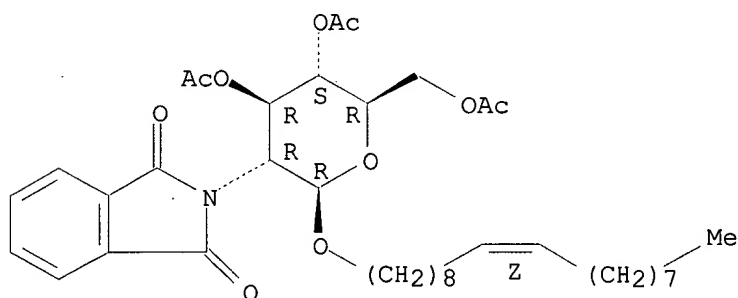
RL: RCT (Reactant)  
 (comps. and synthesis of hydrophobic glycosylamine derivs. for  
 delivery of macromol. compds. to cells)  
 RN 63000-69-1 HCAPLUS  
 CN .alpha.-D-Glucopyranosyl bromide, 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-  
 isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



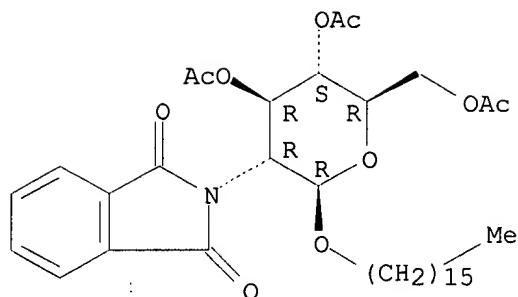
IT 221247-52-5P 221247-54-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (comps. and synthesis of hydrophobic glycosylamine derivs. for  
 delivery of macromol. compds. to cells)  
 RN 221247-52-5 HCAPLUS  
 CN .beta.-D-Glucopyranoside, (9Z)-9-octadecenyl 2-deoxy-2-(1,3-dihydro-1,3-  
 dioxo-2H-isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RN 221247-54-7 HCAPLUS  
 CN .beta.-D-Glucopyranoside, hexadecyl 2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-  
 isoindol-2-yl)-, 3,4,6-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:590619 HCAPLUS

DOCUMENT NUMBER: 131:333590

TITLE: The folding and enzymatic activity of glucose oxidase in the glycolipid matrixes of different charges

AUTHOR(S): Li, J.-r.; Du, Y.-k.; Boullanger, P.; Jiang, L.

CORPORATE SOURCE: Institute of Photographic Chemistry, Molecular Science

Center, Laboratory of Colloid and Interface, Academia Sinica, Beijing, Peop. Rep. China

SOURCE: Thin Solid Films (1999), 352(1,2), 213-217

CODEN: THSFAP; ISSN: 0040-6090

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The influence of lipid matrixes with different charges on the protein folding behavior has been investigated by using the Langmuir-Blodgett

(LB) technique. To understand the conformation change under different forces, glucose oxidase (GOD) from Aspergillus Niger was used as a protein model. Eight glycolipids (1,2-o-dialkyl-3-o-.beta.-d-glycosylglycerols and alkyl 2-amino-2-deoxy-.beta.-d-glucopyranoside) were used as the matrixes for this investigation. It was obsd. that the GOD can penetrate into neutral glycolipid monolayer and change its conformation in favor of the .alpha.-helix formation. Moreover, GOD strongly adsorbed to the pos. charged glycolipid monolayer and change its conformation in favor of the .beta.-sheet formation. Enzymic activity measurements showed that the more the .alpha.-helix conformation content is in the GOD, the higher activity the GOD will be. This fact suggested a new way to mediate the conformation of protein in organized mol. assemblies, and provided a new thinking for the prepn. of biomimetic film and biosensor.

CC 6-3 (General Biochemistry)

Section cross-reference(s): 7

IT 81281-23-4 86363-39-5 86363-40-8 133128-66-2 159302-84-8

159302-85-9 159405-31-9

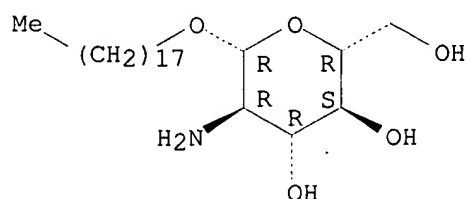
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological

study); USES (Uses)

(folding and enzymic activity of glucose oxidase in glycolipid matrixes

of different charges)  
 IT 159405-31-9  
 RL: BUU (Biological use, unclassified); PRP (Properties); BIOL  
 (Biological  
 study); USES (Uses)  
 (folding and enzymic activity of glucose oxidase in glycolipid  
 matrixes  
 of different charges)  
 RN .159405-31-9 HCAPLUS  
 CN .beta.-D-Glucopyranoside, octadecyl 2-amino-2-deoxy- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry.



REFERENCE COUNT: 18  
 REFERENCE(S): (2) Adler, A; Methods in Enzymology 1973, V27, P675  
 HCAPLUS  
 (6) Cheesman, D; Adv Protein Chem 1954, V9, P439  
 HCAPLUS  
 (7) Du, Y; Coll Surf B: Biointerfaces 1996, V7, P129  
 HCAPLUS  
 (9) Fenderson, B; BioEssays 1990, V12, P173 HCAPLUS  
 (10) Hakomori, S; Annu Rev Biochem 1981, V50, P733  
 HCAPLUS  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2001 ACS  
 ACCESSION NUMBER: 1998:192924 HCAPLUS  
 DOCUMENT NUMBER: 128:305665  
 TITLE: Spectroscopic study of mixed Langmuir-Blodgett films  
 of alkyl glycoside with positive charge and glucose  
 oxidase  
 AUTHOR(S): Du, Yukou; Tang, Ji'an; Jiang, Long; Boullanger, Paul  
 CORPORATE SOURCE: Institute of Photographic Chemistry, Chinese Academy  
 of Sciences, Beijing, 100101, Peop. Rep. China  
 SOURCE: Ganguang Kexue Yu Guang Huaxue (1998), 16(1), 32-37  
 CODEN: GKKHE9; ISSN: 1000-3231  
 PUBLISHER: Kexue Chubanshe  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 AB Octadecyl-2-amino-2-deoxy-.beta.-D-glucopyranoside (C18) was synthesized.  
 The interaction between C18 and glucose oxidase was studied by recording  
 isotherms of monolayers. Mixed C18/glucose oxidase on Langmuir-Blodgett  
 (LB) films was investigated by spectroscopy methods. From the results of  
 CD spectrum, glucose oxidase immobilized in C18 films partly changed  
 their

secondary structure. Low temp. fluorescence studied showed that part of  
 the glucose oxidase mols. in the LB film maintained its native structure,

and part became partly denatured.

CC 7-7 (Enzymes)

IT 159405-31-9

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(glucose oxidase interaction with; spectroscopic study of mixed Langmuir-Blodgett films of alkyl glycoside with pos. charge and glucose oxidase)

IT 159405-31-9

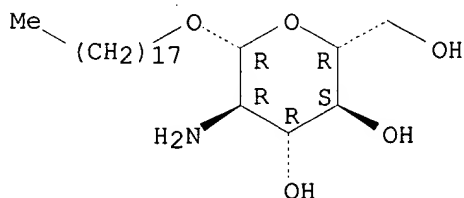
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(glucose oxidase interaction with; spectroscopic study of mixed Langmuir-Blodgett films of alkyl glycoside with pos. charge and glucose oxidase)

RN 159405-31-9 HCAPLUS

CN .beta.-D-Glucopyranoside, octadecyl 2-amino-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1995:977401 HCAPLUS

DOCUMENT NUMBER: 124:176728

TITLE: Synthesis and surface-active properties of some alkyl 2-amino-2-deoxy-.beta.-D-glucopyranosides

AUTHOR(S): Boullanger, Paul; Chevalier, Yves; Croizier, Marie-Christine; Lafont, Dominique; Sancho,

Marie-Rose

CORPORATE SOURCE: Lab. Chimie Org., Univ. Lyon 1, Villeurbanne, F-69622,

Fr.

SOURCE: Carbohydr. Res. (1995), 278(1), 91-101

CODEN: CRBRAT; ISSN: 0008-6215

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Several alkyl 2-acetamido-2-deoxy-.beta.-D-glucopyranosides were synthesized using either the oxazoline or the N-allyloxycarbonyl procedure. The latter procedure gave better yields with fatty alcs. and cholesterol. The derivs. thus prepd. were partly or fully deprotected and their surface-active properties assessed.

CC 33-7 (Carbohydrates)

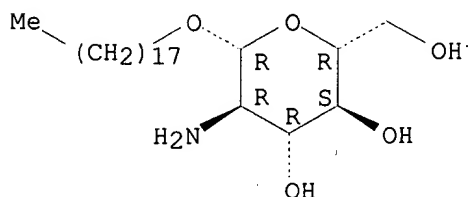
Section cross-reference(s): 32, 46

IT 72205-17-5P 147025-06-7P 147126-58-7P 152914-68-6P 152914-69-7P  
159302-81-5P 159302-82-6P 159302-85-9P 159405-31-9P

Owens 09/149,721

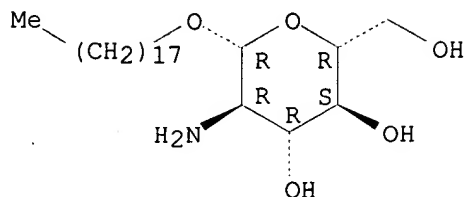
173725-28-5P 173725-29-6P 173934-01-5P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(synthesis and surface-active properties of alkyl  
aminodeoxyglucopyranosides)  
IT **159405-31-9P**  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(synthesis and surface-active properties of alkyl  
aminodeoxyglucopyranosides)  
RN 159405-31-9 HCAPLUS  
CN .beta.-D-Glucopyranoside, octadecyl 2-amino-2-deoxy- (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.



L13 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1994:712595 HCAPLUS  
DOCUMENT NUMBER: 121:312595  
TITLE: Mesomorphic amino sugars  
AUTHOR(S): Stangier, P.; Vill, V.; Rohde, S.; Jeschke, U.;  
Thiem, J.  
CORPORATE SOURCE: Dep. Chem., Univ. Alberta, Edmonton, AB, Can.  
SOURCE: Liq. Cryst. (1994), 17(4), 589-95  
CODEN: LICRE6; ISSN: 0267-8292  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB New liq. cryst. compds. were prepd. from glucosamine and  
6-amino-6-deoxyhexopyranose. The monoalkylated carbohydrates show  
smectic phases. The influence of the amino group on the clearing temps. is  
minor.  
The salts of the cyclic amines can form smectic or discotic mesophases.  
The clearing points are lower than those obsd. for acyclic amines.  
CC 75-11 (Crystallography and Liquid Crystals)  
Section cross-reference(s): 33  
IT 159302-74-6P 159302-75-7P 159302-82-6P 159302-86-0P 159302-88-2P  
159302-89-3P 159302-90-6P 159302-91-7P 159302-92-8P  
**159405-31-9P**  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and transition temps. of)  
IT **159405-31-9P**  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and transition temps. of)  
RN 159405-31-9 HCAPLUS  
CN .beta.-D-Glucopyranoside, octadecyl 2-amino-2-deoxy- (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.



L13 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1991:415307 HCAPLUS  
 DOCUMENT NUMBER: 115:15307  
 TITLE: Skin-lightening cosmetics containing glucosamines  
 INVENTOR(S): Mishima, Yutaka; Okajima, Takehiko; Hori, Toshiro;  
 Nishimoto, Katsuya; Oyama, Yasuaki  
 PATENT ASSIGNEE(S): Taiyo Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02273608	A2	19901108	JP 1989-96859	19890417

OTHER SOURCE(S): MARPAT 115:15307

AB Skin-lightening cosmetics contain .gtoreq.1 glucosamines I (R1-5 = H, C<30 acyl, alkyl, alkenyl, alkynyl, aryl; .gtoreq.1 of R1-5 = alkyl, alkenyl, alkynyl, aryl) and/or their salts as active ingredients. The cosmetics are safe and prevent skin darkening caused by the sun light. A lotion comprised poly(oxyethylene) (20) monooleate 1.0, EtOH 3.0, polyethylene glycol-600 5.0, citric acid 0.03, Na citrate 0.2, 1-O-ethyltetraacetylglucosamine 0.1, methylparaben 0.1, fragrances, and H2O to 100 wt. parts.

IC ICM A61K007-00

CC 62-4 (Essential Oils and Cosmetics)

IT 134120-77-7 134227-31-9 **134227-32-0** 134227-33-1  
 134227-34-2 134275-62-0 134309-19-6

RL: BIOL (Biological study)  
 (skin-lightening cosmetics contg.)

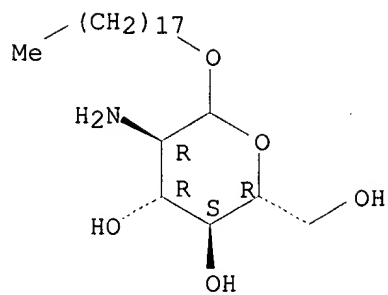
IT **134227-32-0**  
 RL: BIOL (Biological study)  
 (skin-lightening cosmetics contg.)

RN 134227-32-0 HCAPLUS

CN D-Glucopyranoside, octadecyl 2-amino-2-deoxy-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Owens 09/149,721



● HCl